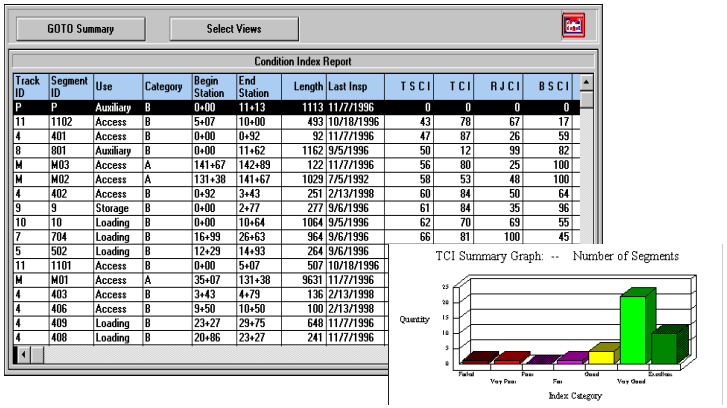
RAILER SMS

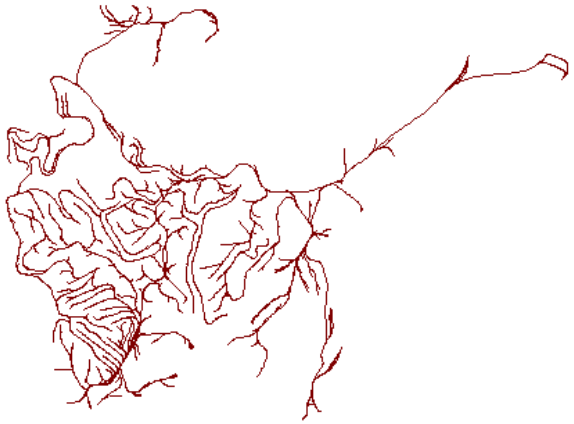
RAILER GIS

What is RAILER GIS?

- ESRI ArcView GIS application.
- Specific RAILER “scripts” developed to work with digitized maps of track networks.
- Pre-set views and themes.
- Linked to specific RAILER databases.
- Displays certain RAILER data spatially.

Why RAILER GIS?



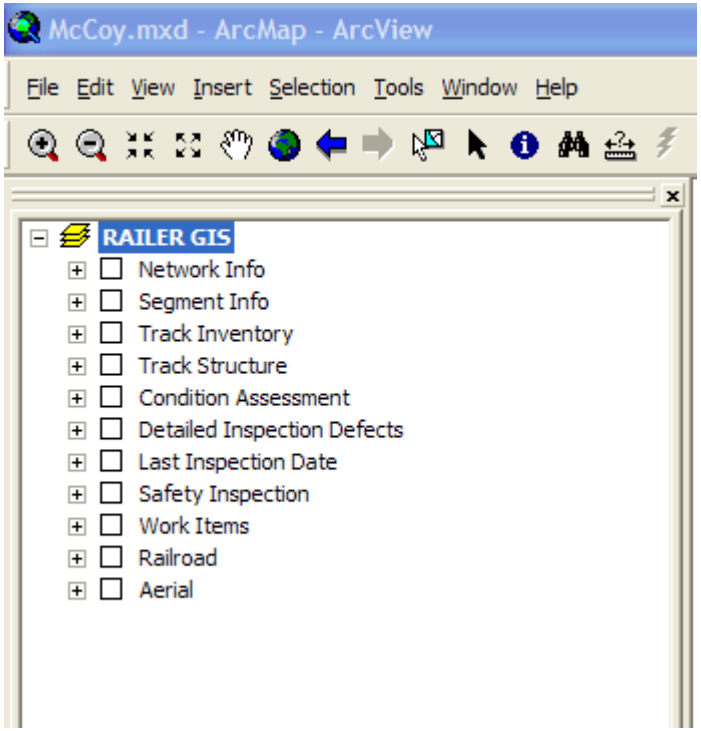


- RAILER Provides a variety of text reports and presentation graphics.
- Although information is conveyed, often the questions of “where” and track interrelationships are not readily apparent.
- GIS clarifies those issues, provides the “big picture” and expands analysis possibilities.

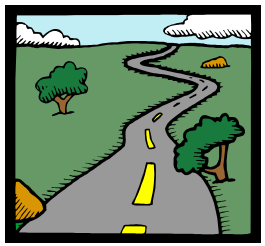
Setting Up a RAILER GIS Project

- Implement RAILER.
- Obtain an AutoCAD or other format drawing that includes desired layers (track, roads, buildings, etc.) and convert to shapefiles.
- Using ArcINFO software, create track route theme coverage.
- Install ArcView GIS software.
- Run RAILER GIS scripts to create GIS “project.”
- Set up and “path” project in RAILER.

RAILER GIS Views

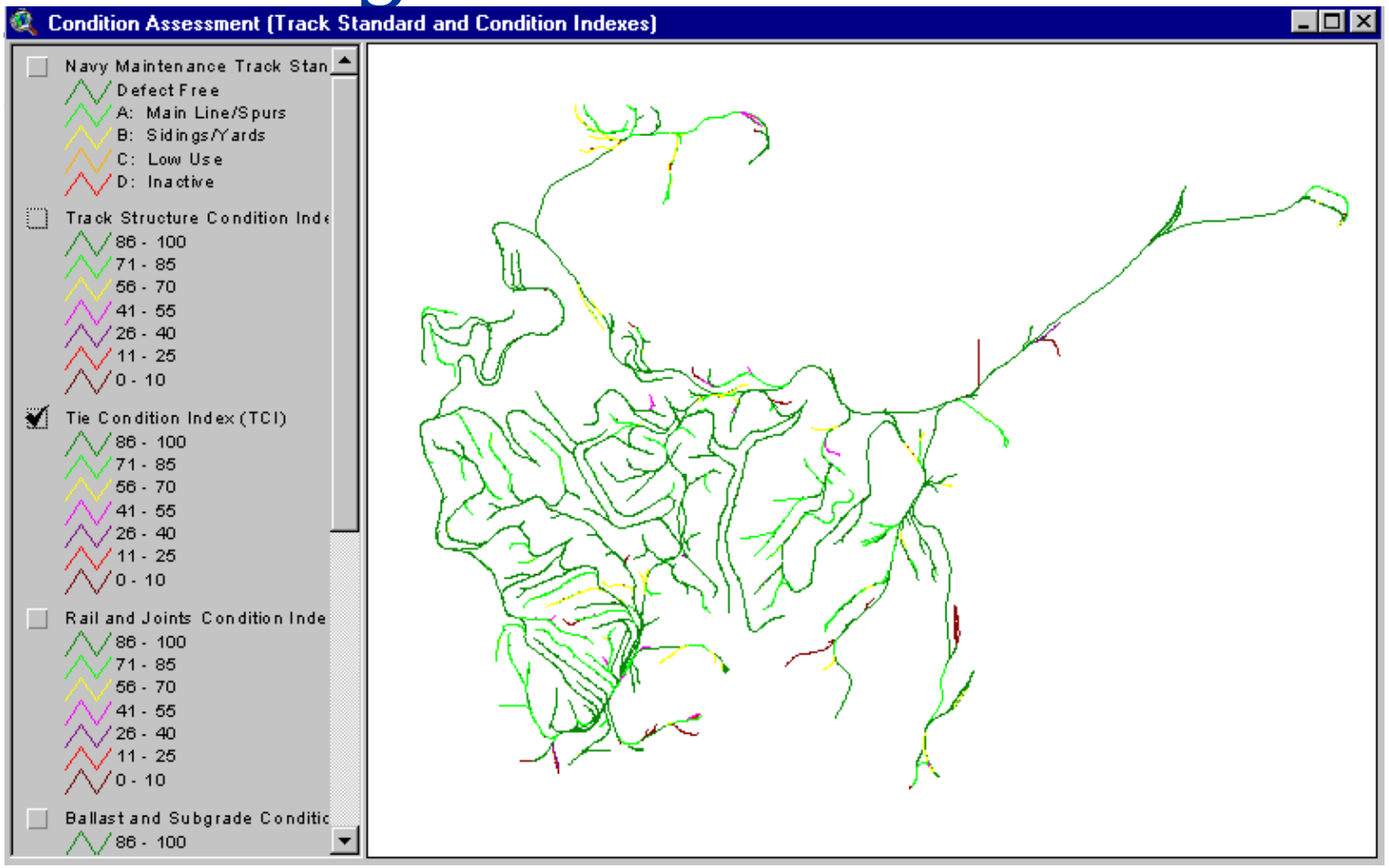


View Features

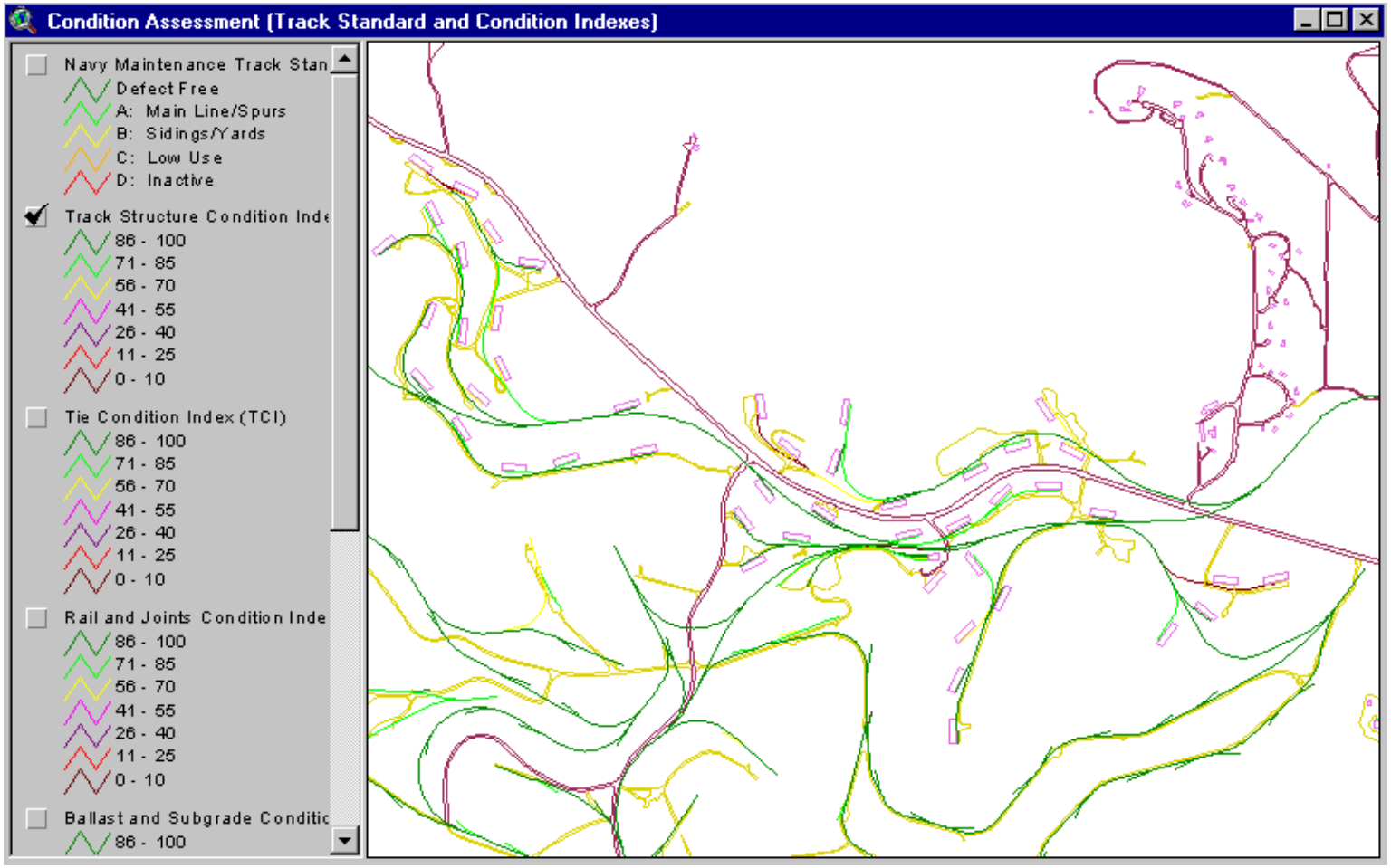


- Sometimes can display two or more themes simultaneously.
- Display roads, buildings, etc., as desired.
- Zoom to desired extent.
- Show detailed information about a theme.
- Modify theme properties (e.g. name, color).
- Run queries.

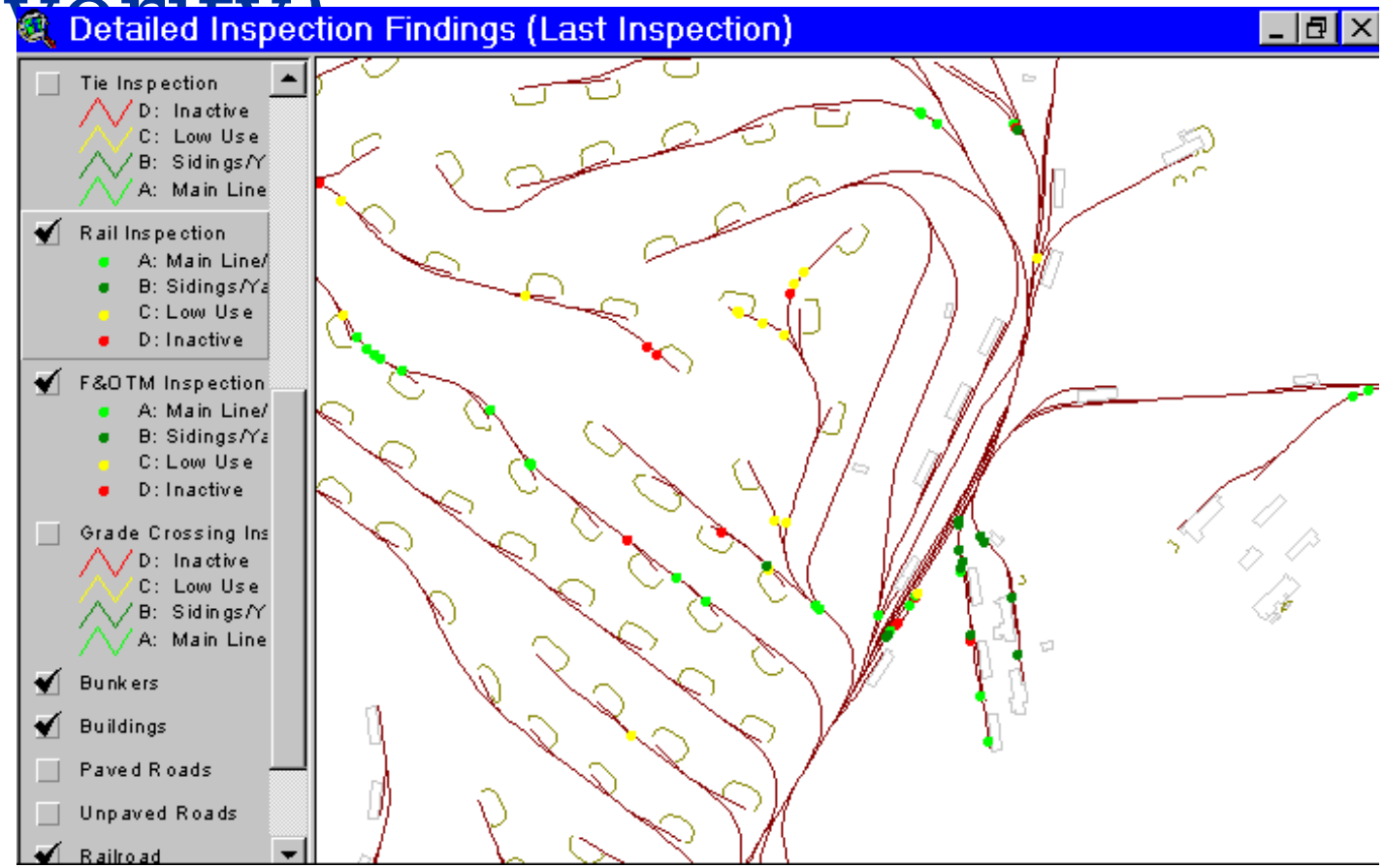
Condition Assessment (Showing TCI Condition T



Condition Assessment (Zoomed with Roads and B



Detailed Inspection Findings (Showing Defect Locations and Severity)



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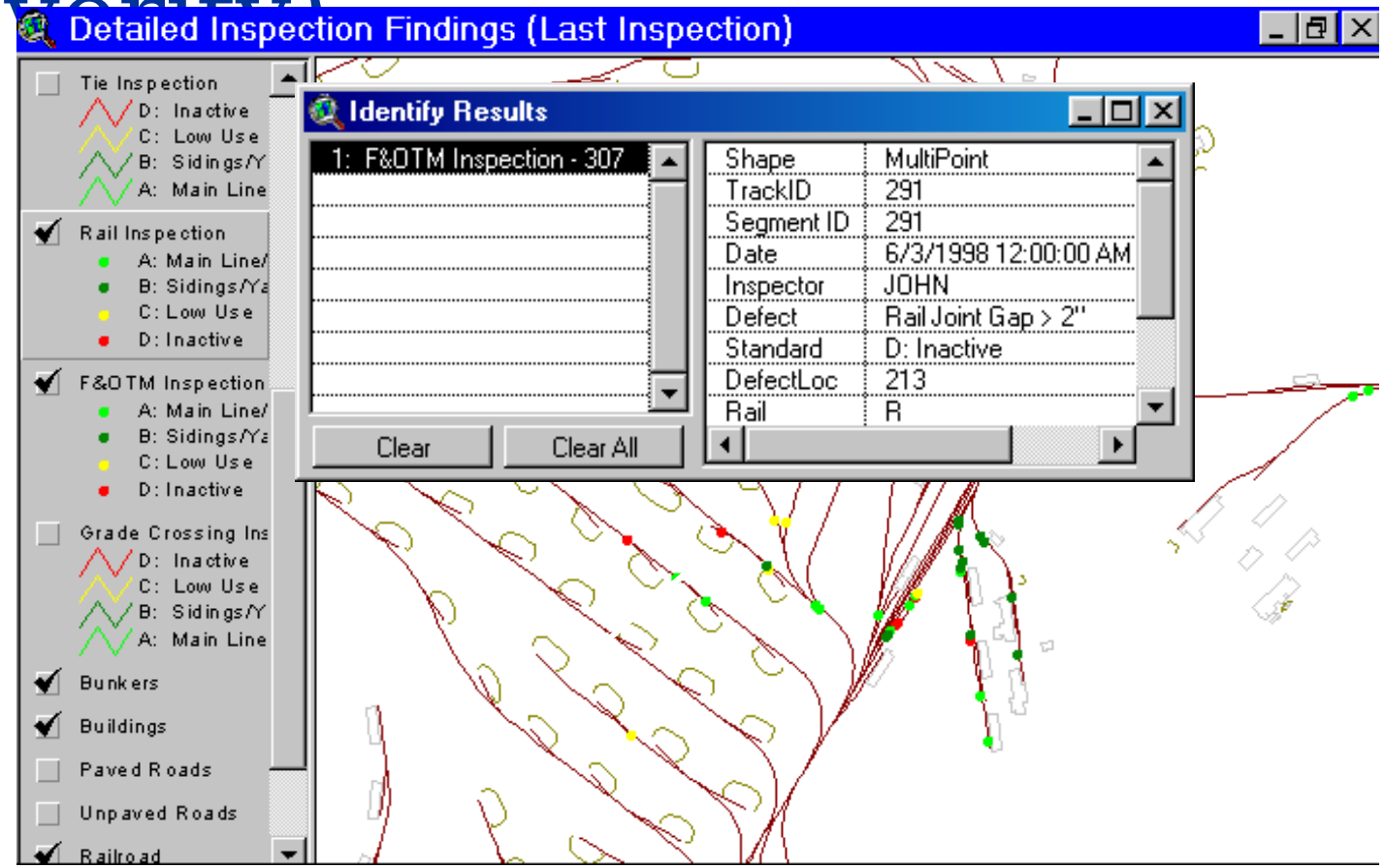
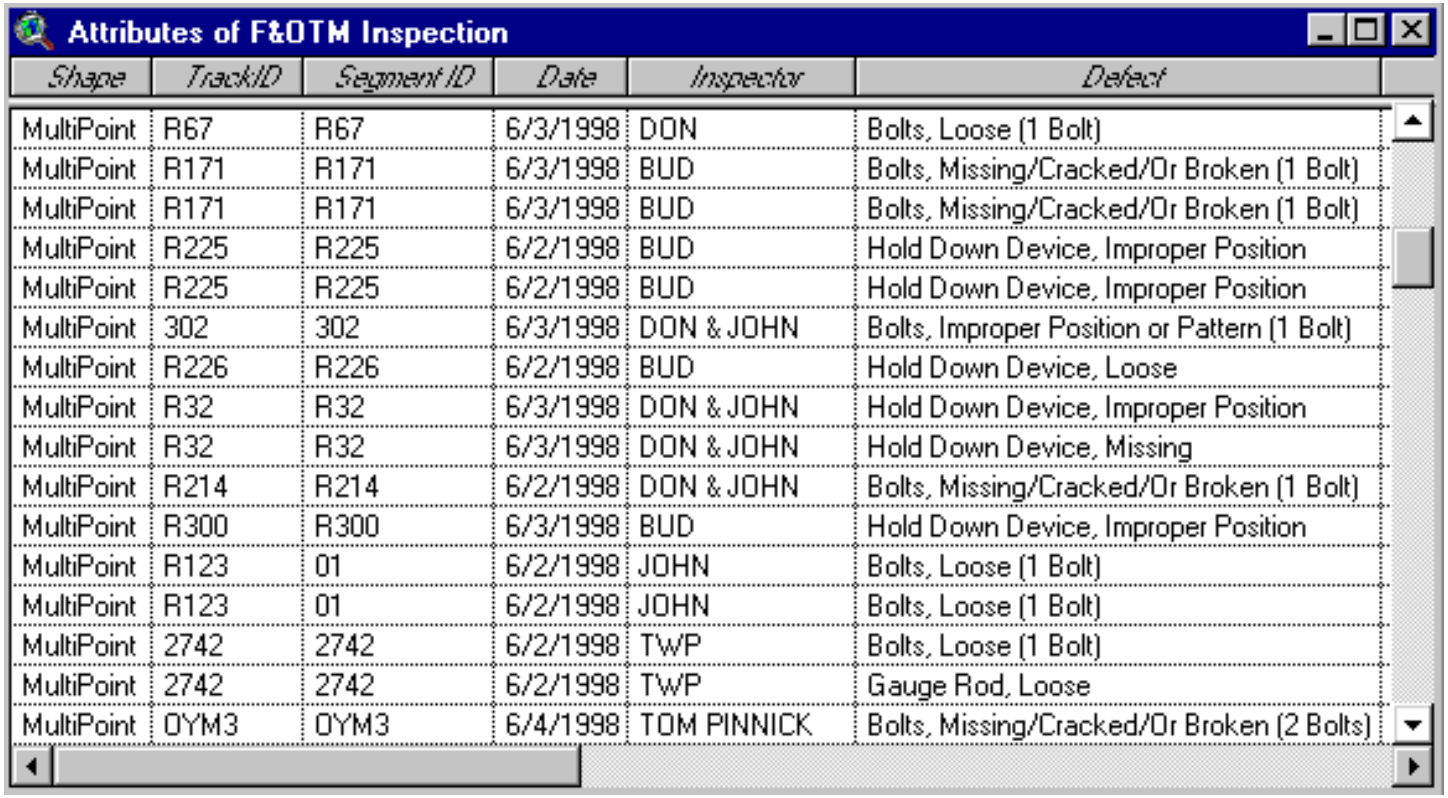


Can also direct link to Inspection

Table Features

- Attribute tables are available to provide more information with regards to views and themes.
- Tables are associated with an active theme in a given view.

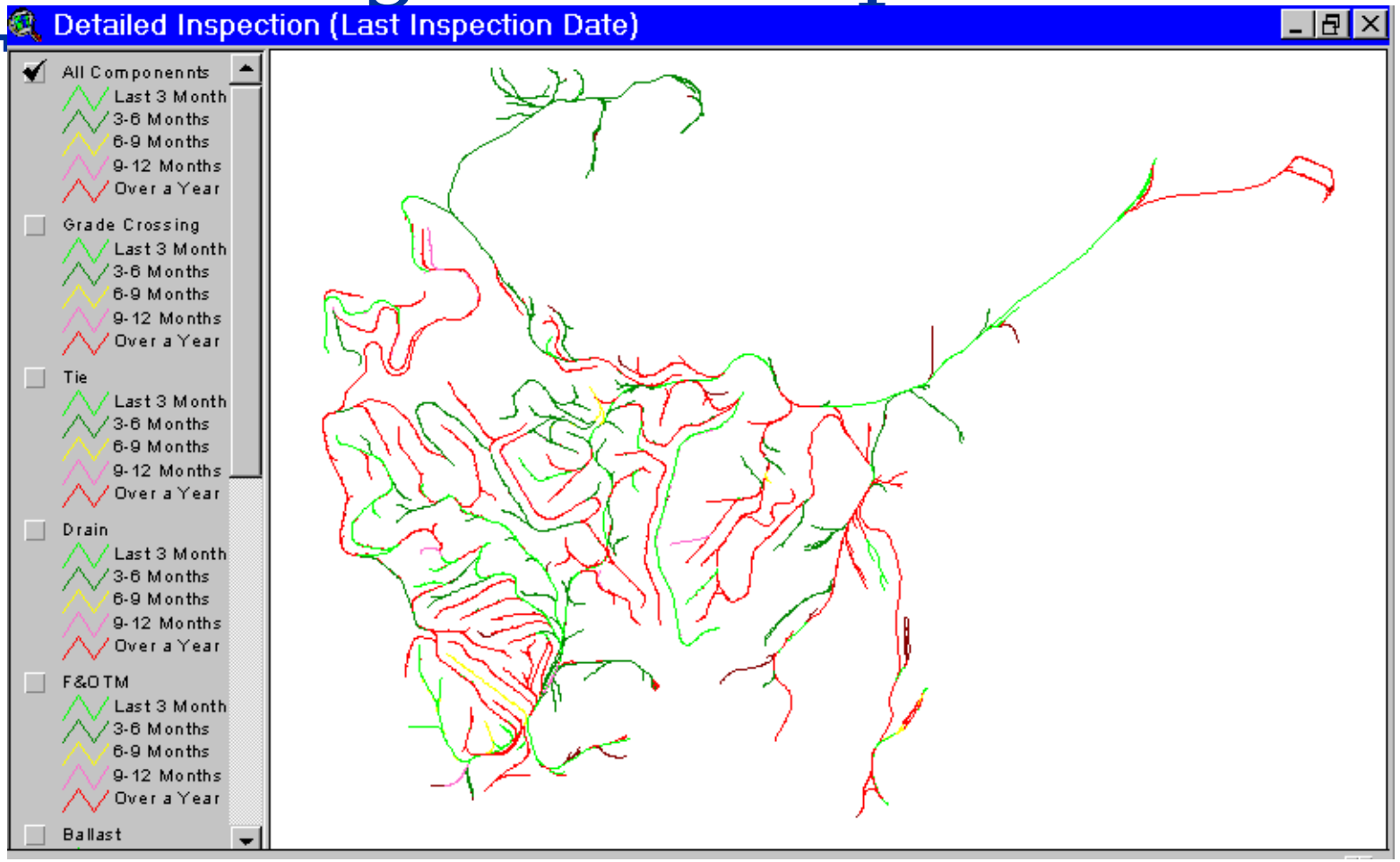
Attribute Table (Showing F&OTM Defects)



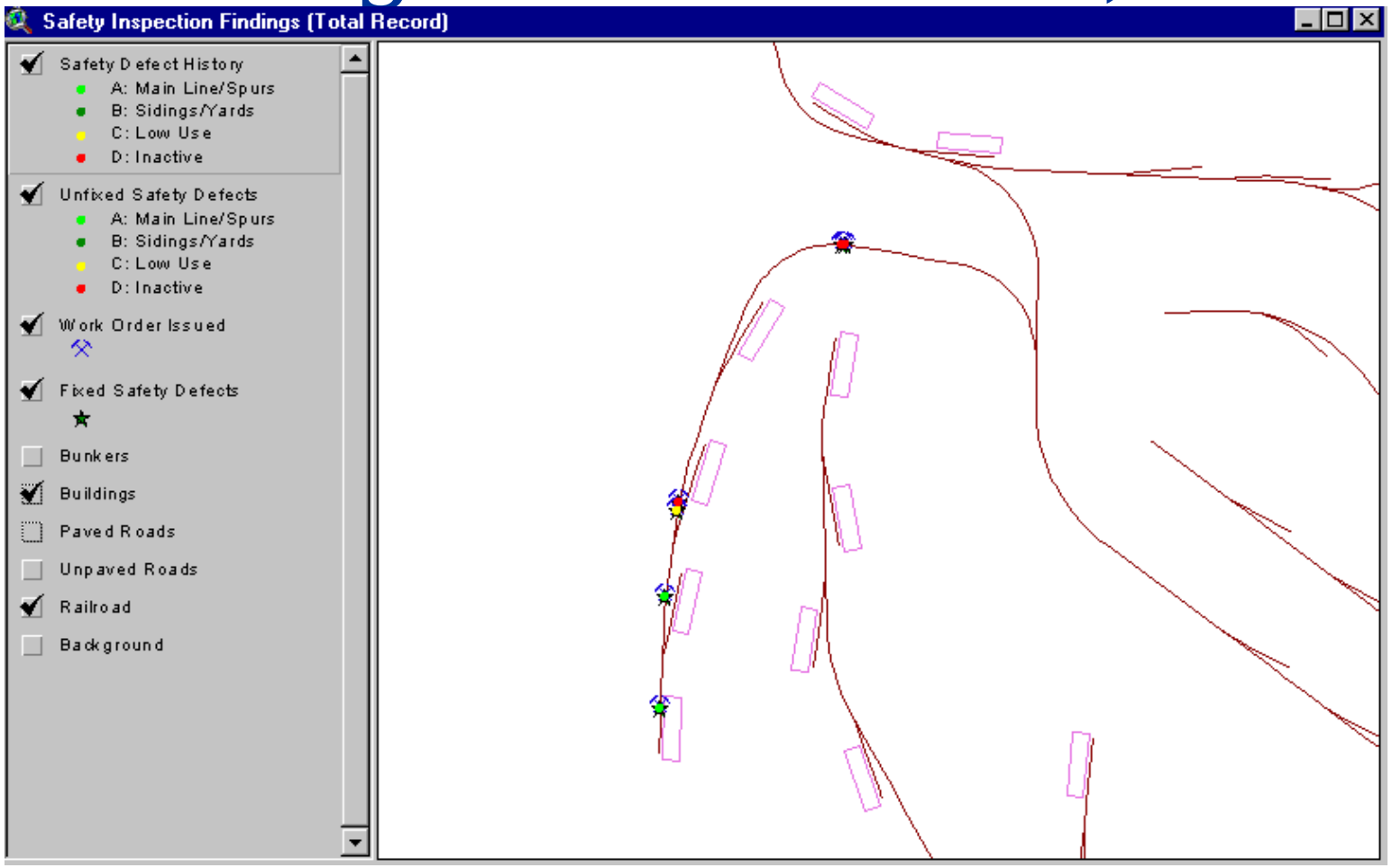
Attributes of F&OTM Inspection

Shape	TrackID	Segment ID	Date	Inspector	Defect
MultiPoint	R67	R67	6/3/1998	DON	Bolts, Loose (1 Bolt)
MultiPoint	R171	R171	6/3/1998	BUD	Bolts, Missing/Cracked/Or Broken (1 Bolt)
MultiPoint	R171	R171	6/3/1998	BUD	Bolts, Missing/Cracked/Or Broken (1 Bolt)
MultiPoint	R225	R225	6/2/1998	BUD	Hold Down Device, Improper Position
MultiPoint	R225	R225	6/2/1998	BUD	Hold Down Device, Improper Position
MultiPoint	302	302	6/3/1998	DON & JOHN	Bolts, Improper Position or Pattern (1 Bolt)
MultiPoint	R226	R226	6/2/1998	BUD	Hold Down Device, Loose
MultiPoint	R32	R32	6/3/1998	DON & JOHN	Hold Down Device, Improper Position
MultiPoint	R32	R32	6/3/1998	DON & JOHN	Hold Down Device, Missing
MultiPoint	R214	R214	6/2/1998	DON & JOHN	Bolts, Missing/Cracked/Or Broken (1 Bolt)
MultiPoint	R300	R300	6/3/1998	BUD	Hold Down Device, Improper Position
MultiPoint	R123	01	6/2/1998	JOHN	Bolts, Loose (1 Bolt)
MultiPoint	R123	01	6/2/1998	JOHN	Bolts, Loose (1 Bolt)
MultiPoint	2742	2742	6/2/1998	TWP	Bolts, Loose (1 Bolt)
MultiPoint	2742	2742	6/2/1998	TWP	Gauge Rod, Loose
MultiPoint	OYM3	OYM3	6/4/1998	TOM PINNICK	Bolts, Missing/Cracked/Or Broken (2 Bolts)

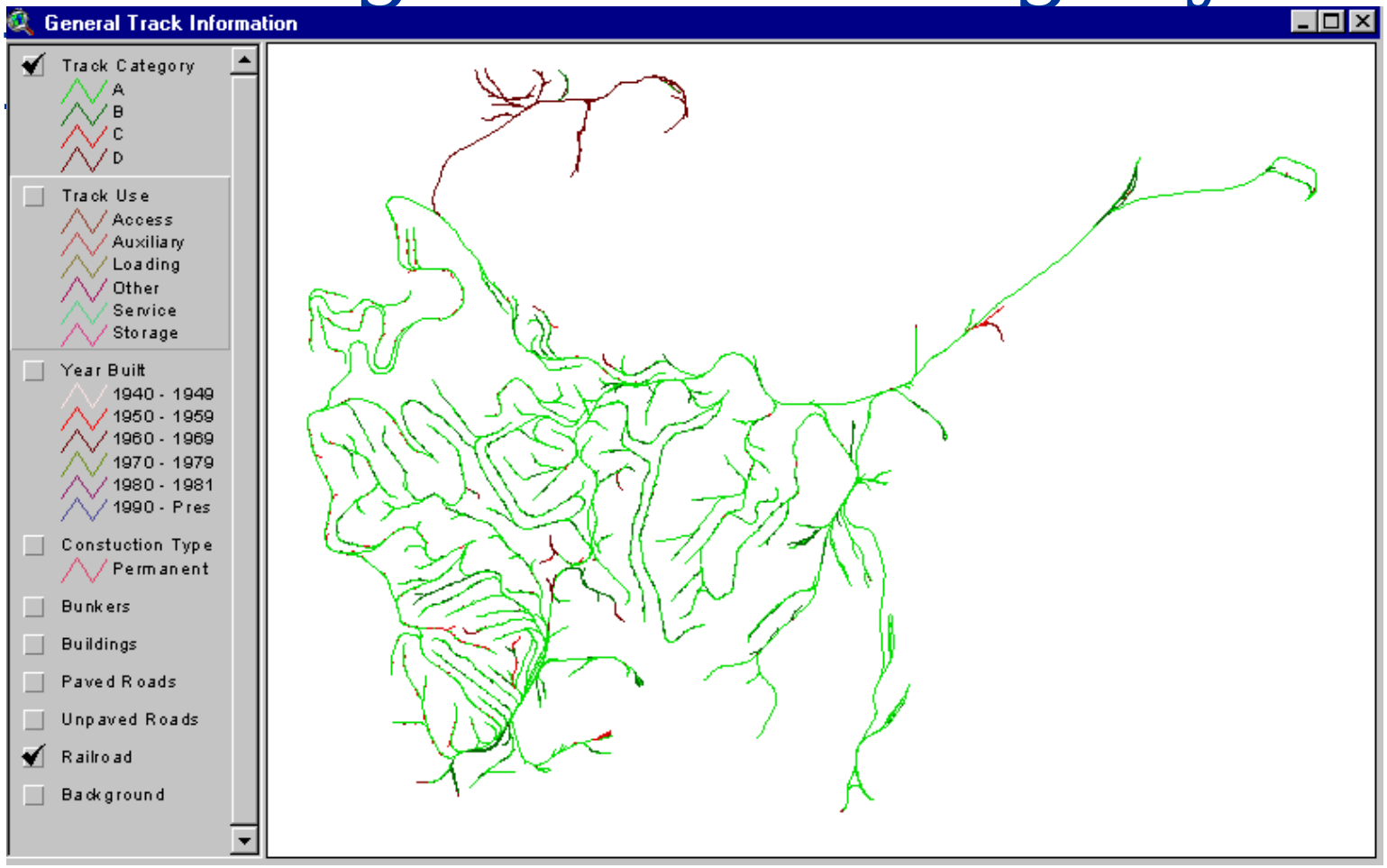
Last Inspection Date (Showing All Components T



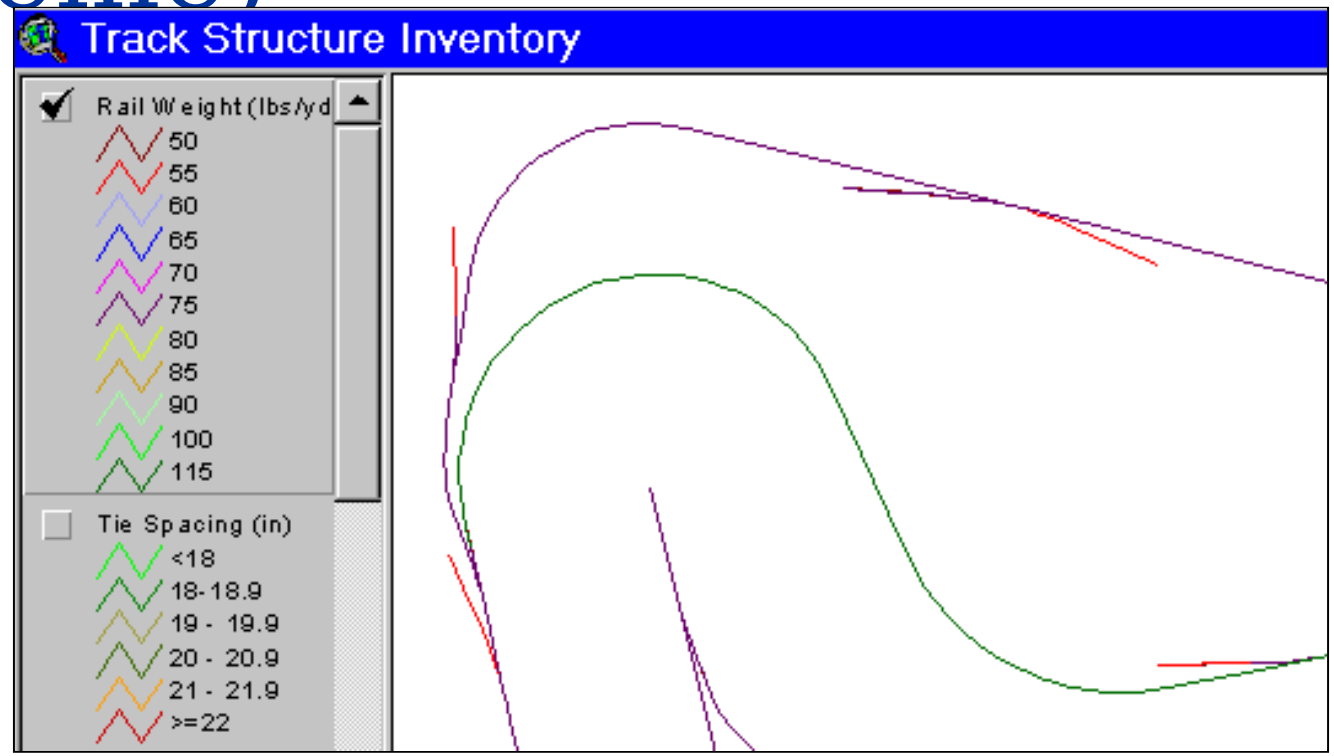
Safety Inspection Findings (Showing Total Record)



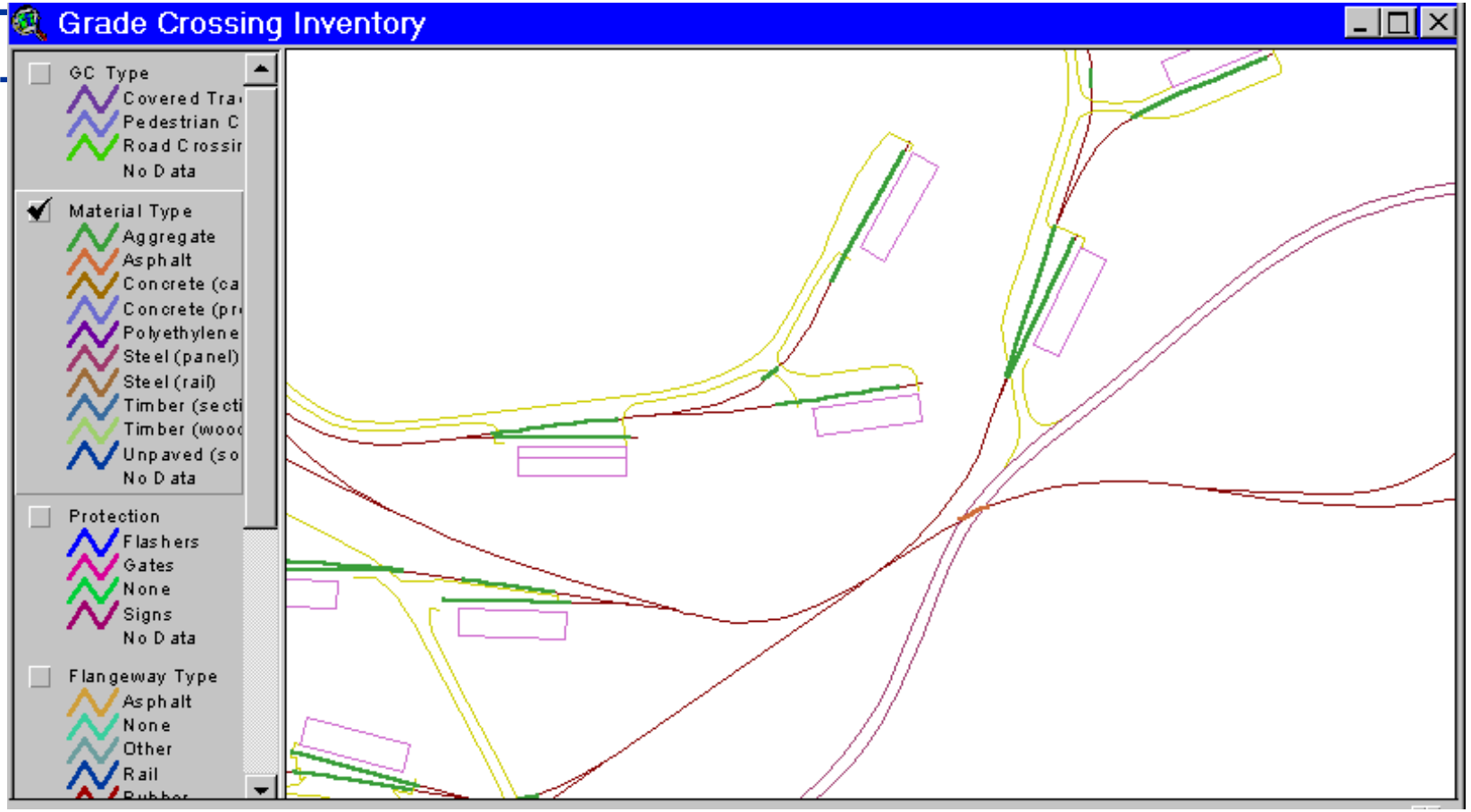
General Track Information (Showing Track Category T



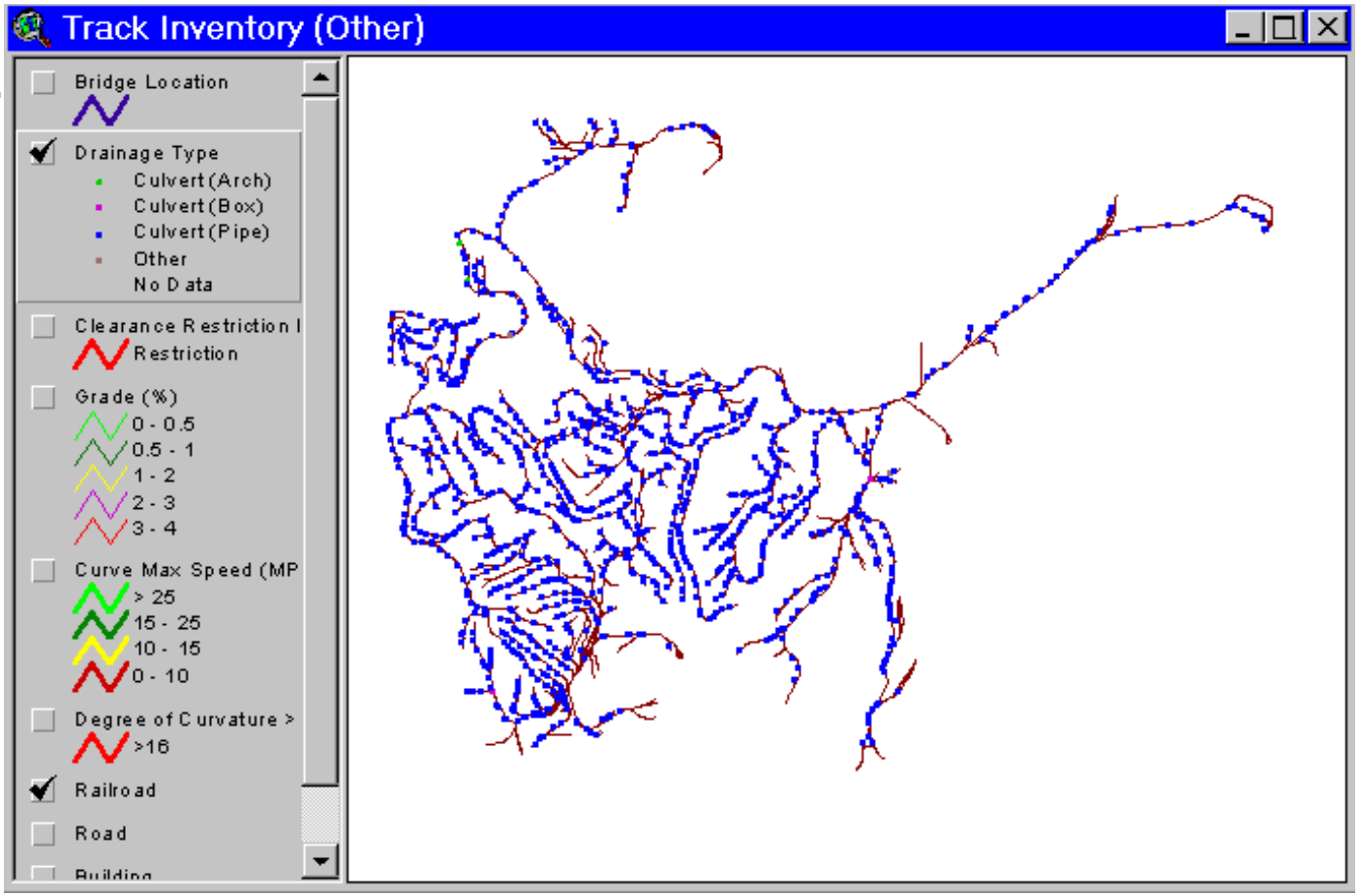
Track Structure Inventory (Showing Rail Weight Theme)



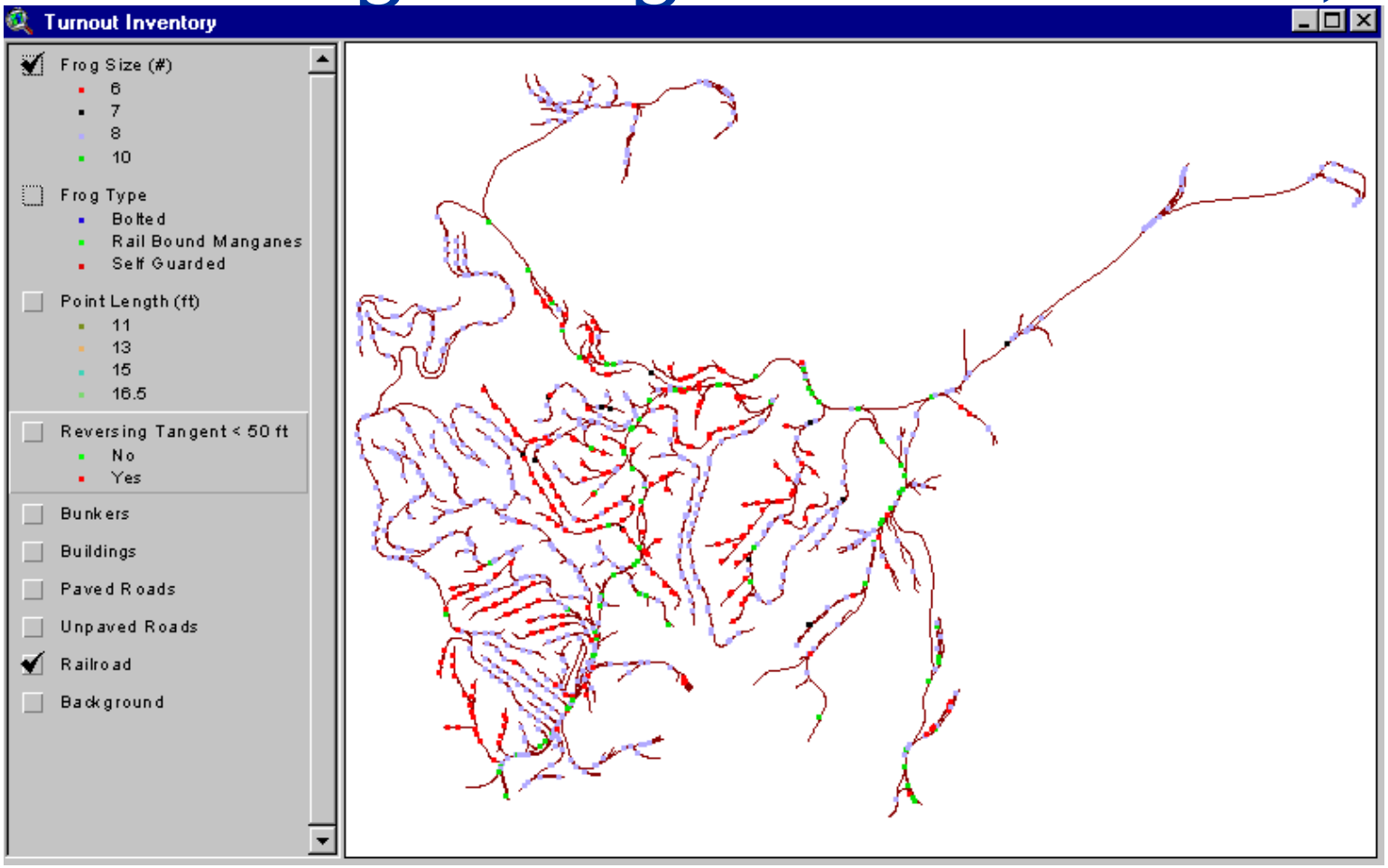
Grade Crossing Inventory (Showing Crossing Material



General Inventory (Showing Drainage Type Th



Turnout Inventory (Showing Frog Size Theme)



RAILER GIS Reporting (Showing Labeling and Air Ph

Key Points to Remember

- GIS provides “big picture” perspective on the decision making process.
- RAILER GIS is a separate program.
- ArcView GIS must be used with RAILER.
- Digitized track maps are required.
- To setup RAILER GIS for a specific site ArcView knowledge is needed, but any user can run it once it is setup.
- RAILER GIS very easy to use with limited knowledge.

Key Points to Remember (Con't)

- Knowledge of ArcInfo required to set up a RAILER GIS Project.
- RAILER GIS project is most easily created by CERL or other source well versed in RAILER, ArcInfo, and ArcView.
- Project then given to user. Users only need ArcView, not ArcInfo.

Questions?